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Claims PTO

12/14/2004

AMW

Claims 1-80 cancelled.

R1.26

Claim 21 (new): An automated unitary-type package identification and dimensioning system supported above a conveyor belt structure, said automated unitary-type package identification and measuring system comprising:

a single system housing supported above said conveyor belt structure;

a package identification subsystem, disposed within said single system housing, for reading bar codes on packages transported along said conveyor belt structure, and producing package identification data that identifies each identified package, and wherein said package identification subsystem includes a 1D imaging-based camera for capturing 1D images of packages transported past said system housing; and

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a package dimensioning subsystem, disposed within said single system housing, for capturing package dimension information about the dimensions of each said package as each said package is transported past said system housing, and for associating with said package dimension data with package identification data produced by said package identification subsystem.

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Claim 22 (new): The automated unitary-type package identification and dimensioning system of claim 21, wherein said package dimensioning subsystem comprises

(i) a Laser Detecting And Ranging (LADAR-based) scanning method for capturing two-dimensional range data maps of the space above said conveyor structure, along which said packages are transported, and

(ii) a two-dimensional image contour tracing method for extracting package dimension data from said two-dimensional range data maps.

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Claim 23 (new): The automated unitary-type package identification and dimensioning system of claim 21, wherein the velocity of each said package is computed by using a pair of amplitude modulated laser beams projected from said package dimensioning subsystem at different angular projections over said conveyor belt structure along which said packages are transported.

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Claim 24 (new): The automated unitary-type package identification and measuring system of claim 23, wherein the amplitude modulated laser beams have multiple wavelengths to sense packages have a wide range of reflectivity characteristics.